

WHAT IS CLAIMED IS:

1. Heat exchanger arrangement on a front carrying structure of a motor vehicle, with a passage orifice for a cooling-air stream, which is overlapped largely by a heat exchanger module of the arrangement and which extends in a vehicle transverse plane and is delimited on two mutually opposite sides by wall regions of the carrying structure, the wall regions belonging to a deformable zone of the front carrying structure, wherein the heat exchange module is mounted on the front carrying structure in such a way that, in the event of a head-on collision subjecting a region of the passage orifice to stress, said heat exchanger module, while absorbing impact energy, co-operates reinforcingly with the wall regions of the carrying structure.

2. Heat exchanger arrangement according to Claim 1, wherein the heat exchanger module is arranged in front of the passage orifice and projects with at least two opposite end regions beyond the passage orifice.

3. Heat exchanger arrangement according to Claim 2, wherein the passage orifice is delimited at the top and bottom by the wall regions of the carrying structure, and in that the wall regions are overlapped at least partially by the upper and lower end regions of the heat exchanger module.

4. Heat exchanger arrangement according to Claim 1, wherein the front carrying structure comprises a large-size front

wall , out of a middle region of which the passage orifice is cut.

5. Heat exchanger arrangement according to Claim 4, wherein the front wall is a lightweight wall of an extruded profile.

6. Heat exchanger arrangement according to Claim 1, wherein two mutually opposite end regions of the heat exchanger module are fastened to the carrying structure approximately over an entire longitudinal extent of the end regions.

7. Heat exchanger arrangement according to Claim 2, wherein the heat exchanger module is capable of being pushed with the projecting end regions in a manner of a drawer into associated sliding guides of the wall regions and of being secured in a pushed-in position via fixing elements.

8. Heat exchanger arrangement according to Claim 7, wherein the sliding guides are produced in one part with a front wall.

9. Heat exchanger arrangement according to Claim 1, wherein the heat exchanger module is assigned to a cooling-water circuit of an engine, and in that at least one further heat exchanger module is arranged in a region of overlap with the heat exchanger module .

10. Heat exchanger arrangement according to Claim 4, wherein further assemblies are mounted on the front wall.

11. Heat exchanger arrangement according to Claim 10, wherein the further assemblies is a front module arranged in front of the front wall.

12. Heat exchanger arrangement according to Claim 7, wherein the proximity end regions and the associated sliding guides form a tongue and groove arrangement.

13. A heat exchanger assembly on a front carrying structure of a motor vehicle, comprising:

a passage orifice for a cooling-air flow extending in a transverse plane,

a heat exchanger module approximately overlapping the passage orifice, and

a front wall region of the front carrying structure having at least two mutually facing side wall regions delimiting the passage orifice,

wherein the heat exchanger module has two mutually opposite end regions operatively connected to the front wall region so that the front wall region and the heat exchanger modules belong to a deformable zone of the front carrying structure and reinforcingly cooperate with each other in the event of a head-on collision.

14. The heat exchanger assembly according to Claim 13, wherein the heat exchanger module is arranged in the front wall region by sliding the two mutually opposite end regions into associated sliding guides of the front wall region and is secured with fixing devices.

15. A vehicle assembly comprising:

a front carrying structure of a motor vehicle having a passage orifice extending in a transverse plane for a cooling-air flow, and a deformable zone having wall regions which delimit the passage orifice on two mutually opposite sides, and

a heat exchanger module mounted on the front carrying structure substantially overlapping the passage orifice to thereby absorb impact energy and reinforcingly cooperate with the wall regions in the event of a head-on collision.

16. The assembly according to Claim 15, wherein at least two opposite end regions of the heat exchanger module project beyond the passage orifice.

17. A method of making a motor vehicle assembly, comprising:

providing a front carrying structure with a passage orifice extending in a vehicle transverse plane,

delimiting the passage orifice on two mutually opposite sides by wall regions of the carrying structure, said wall regions being part of a deformable zone of the carrying structure, and

mounting a heat exchanger module on the carrying structure to substantially overlap the passage orifice so that, in the event of a head-on collision subjecting a region of the passage orifice to stress, said heat exchanger module absorbs impact energy and cooperates reinforcingly with the wall regions.

18. The method according to Claim 17, wherein two mutually opposite end regions of the heat exchanger module are fastened to the carrying structure substantially over an entire longitudinal extent of the end regions.

19. A method of making a heat exchanger assembly on a front carrying structure of a motor vehicle, comprising:

providing a passage orifice for a cooling-air flow which extends in a vehicle transverse plane and is delimited on two mutually opposite sides by wall regions of a deformable zone of the front carrying structure,

providing a heat exchanger module with two opposite end regions, and

mounting the heat exchanger module approximately overlapping the passage orifice by arranging the end regions projecting beyond the passage orifice so that, in the event of a head-on collision, the heat exchanger module absorbs impact energy and cooperates reinforcingly with the wall regions.